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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/526,117	03/15/2000	Christian Tschudin	DT-3360	9943

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EXAMINER

WAXMAN, ANDREW

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 12/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/526,117

Applicant(s)

TSCHUDIN, CHRISTIAN

Examiner

Andrew M Waxman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-17 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 11 compares a "data structure" to a "table structure" where the "table structure" is not taught by the specification or the previous claim language and is unclear how the comparison would result without an enabling description of "table structure."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5, and 10-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Banchs et al. ("Multicasting Multimedia Streams with Active Networks"), hereinafter referred to as Banchs.

Regarding claims 1 and 16, Banchs discloses an apparatus and method for active network protocol processing in which protocol processing code is loaded into network nodes at run-time (see page 150 *Introduction*). Banchs further discloses a specific piece of code (from a memory within the node, see page 151 *The ANTS Architecture and Node Structure*) being invoked and performed on the packet based on an identifier within the header as the packet passes through the node (see page 150 *Introduction* and page 151 *The ANTS Architecture*).

Regarding claim 5, Banchs further discloses the routing table (code cache) including an operation code, and the ability to change the existing routing table (code cache). See page 152 *Dynamic Code Management*.

Regarding claim 9, Banchs further discloses removing errors in the network software (i.e. deleting tokens with no match). See page 150 *Introduction*.

Regarding claim 10 and 14, Banchs further discloses processing tokens with a default processing routine if no match is found but one is possible (i.e. no errors) and/or the match is non-deterministic. See page. 152 *Dynamic Code Management*.

Regarding claims 11 and 12, Banchs discloses the table being a cache memory with auxiliary data structures (neighbors) are provided. See page. 152 *Dynamic Code Management*.

Regarding claim 13, Banchs further discloses the code cache containing multiple codes. See page 150 *Introduction*.

Regarding claim 15, Banchs further discloses the identifier being extracted form the packet. See page 150 *Introduction*, page 151 *The ANTS Architcture*, and *Packet Structure*.

Regarding claim 17, Banchs discloses the method being peformed in a computer network node which inherently contains a processor to perform the operations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banchs in view of Smith et al. (“Activating Networks: A Progress Report”), hereinafter referred to as Smith.

Regarding claim 6, Banchs discloses all of the limitations as recited above with respect to claim 1.

Banchs does not expressly disclose the routing table entry including a reference to an externally installed subroutine.

Smith discloses a active network protocol (SwitchWare) including externally installed extensions to the resident code base (see page 35 *SwitchWare*).

Therefore, at the time the invention was made it would have been obvious to one of ordinary skill in the art to include the extensions, as disclosed by Smith, into the invention as disclosed by Banchs.

One of ordinary skill in the art would have been motivated to do this in order to increase the security of the communication because of the more thorough security checks subjected to the extensions. See Smith page 35 *SwitchWare* 2nd paragraph.

Regarding claim 7, Banchs further discloses the routing table (code cache) including an operation code, and the ability to change the existing routing table (code cache). See page 152 *Dynamic Code Management*.

Regarding claim 8, Banchs further discloses the code performing tasks on a single packet or a stream of packets (flow). See page 150 *Abstract*.

Allowable Subject Matter

Claims 2 - 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach or fairly suggest the route table entries further containing an output index field, where at least one multi-set of tokens is maintained, that every matched token is removed from said at least one multi-set, that the packet of such a matched token, depending on the semantics of the operation referenced by the matched route table entry, is forwarded or destroyed or at least one new token is generated and again added to one of said at least one multi-sets, the selector of the at least one new token being copied from the output index of the matched route table entry or being otherwise computed.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew M Waxman whose telephone number is (703) 305-8086. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Andrew M. Waxman


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 12/8/03